



Stony Brook University

Moderate Forward Upgrades: Goals, Approach, Ideas

Christine Aidala, Nils Feege

22nd sPHENIX Fortnightly General Meeting
Brookhaven National Laboratory, March 3, 2017

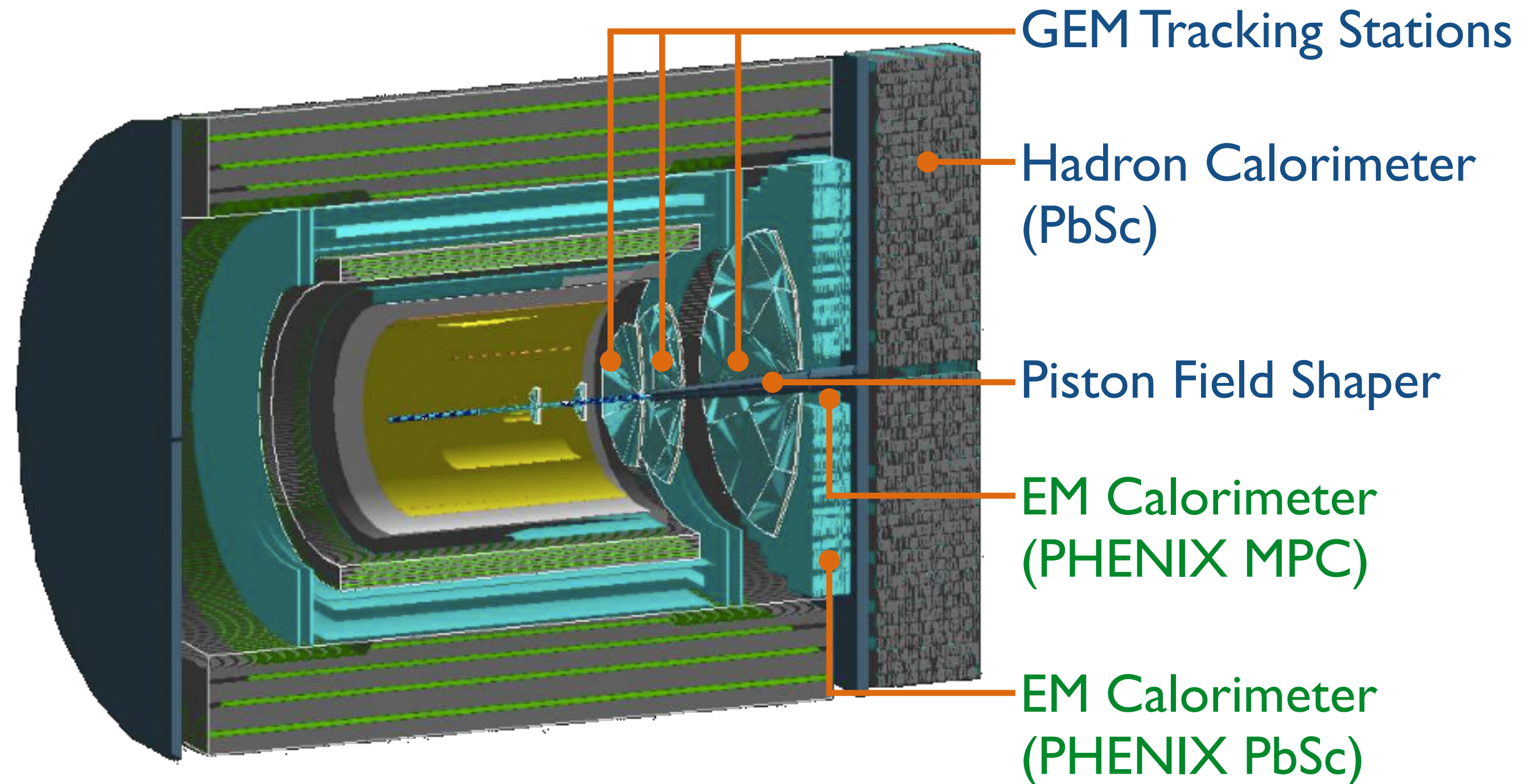
Request from BNL ALD

Berndt Mueller

[...] In addition, I invite the STAR and sPHENIX Collaborations to present **letters of intent for proposals of modest forward upgrades** to their detectors for data taking after 2021 for consideration by the PAC.

The dates for this year's RHIC PAC meeting are **June 15-16, 2017**. [...]

What is a 'moderate forward upgrade'?



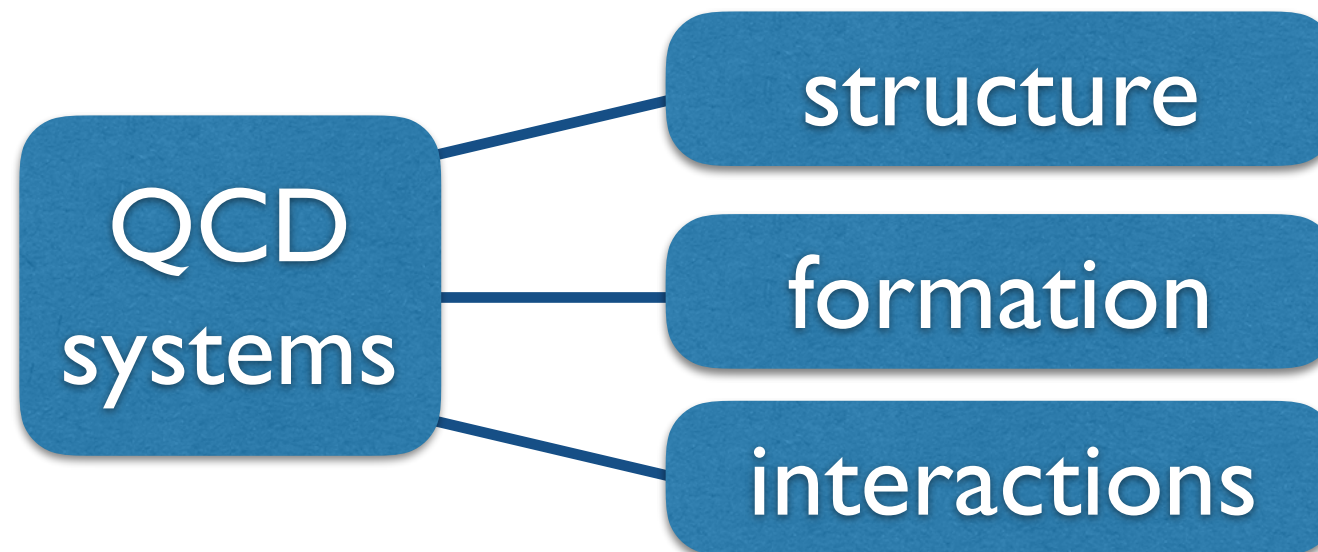
What are our goals for forward upgrades and the LOI?

Cover more pseudorapidity
for A+A measurements

p+p / p+A measurements
as e.g. outlined in RHIC
Cold QCD Plan

sPHENIX as Electron-
Ion Collider Detector

How should we approach the LOI?



- **A+A physics (need more input!)**
- Cold QCD Plan measurements
- Detector description and performance simulations (ideally using full GEANT4 model)
- Use for EIC (also: separate EIC detector document)

Ideas?

RHIC Spin Collaboration Meeting at BNL March 9-10

“This RHIC Spin Collaboration Meeting at BNL is to discuss progress with the realization of the RHIC Cold QCD plan developed a year ago (arXiv:1602.03922).”

“The meeting focuses on the forward spectrometer hardware solution(s).”

[https://wiki.bnl.gov/conferences/index.php/
RSC_Hardware_2017](https://wiki.bnl.gov/conferences/index.php/RSC_Hardware_2017)

Visit our Wiki page.

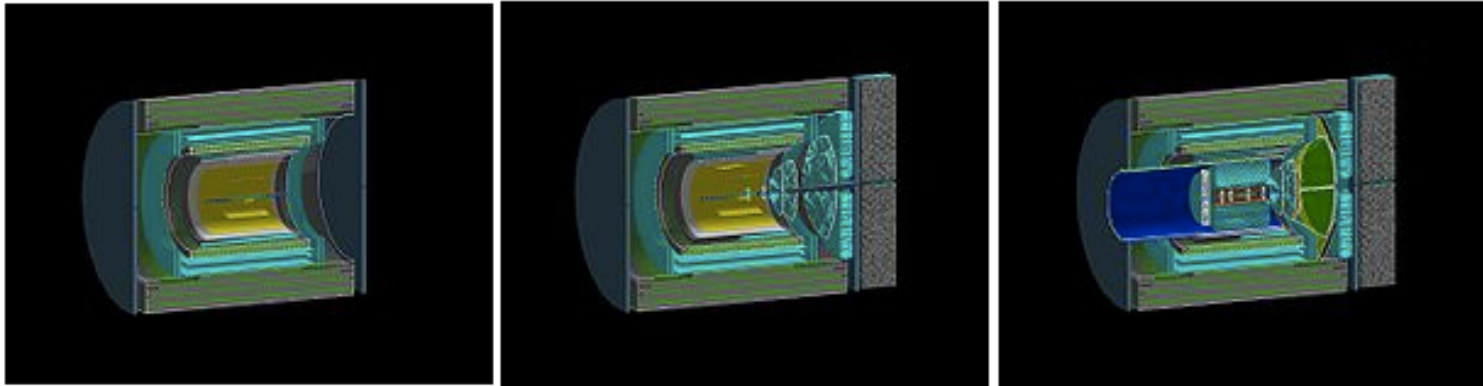
[page](#) [discussion](#) [edit](#) [history](#) [move](#) [watch](#)

Cold QCD Topical Group

Contents [\[hide\]](#)



- 1 Introduction
 - 1.1 References
 - 1.2 Contacts
- 2 Meetings
- 3 Studies

Introduction



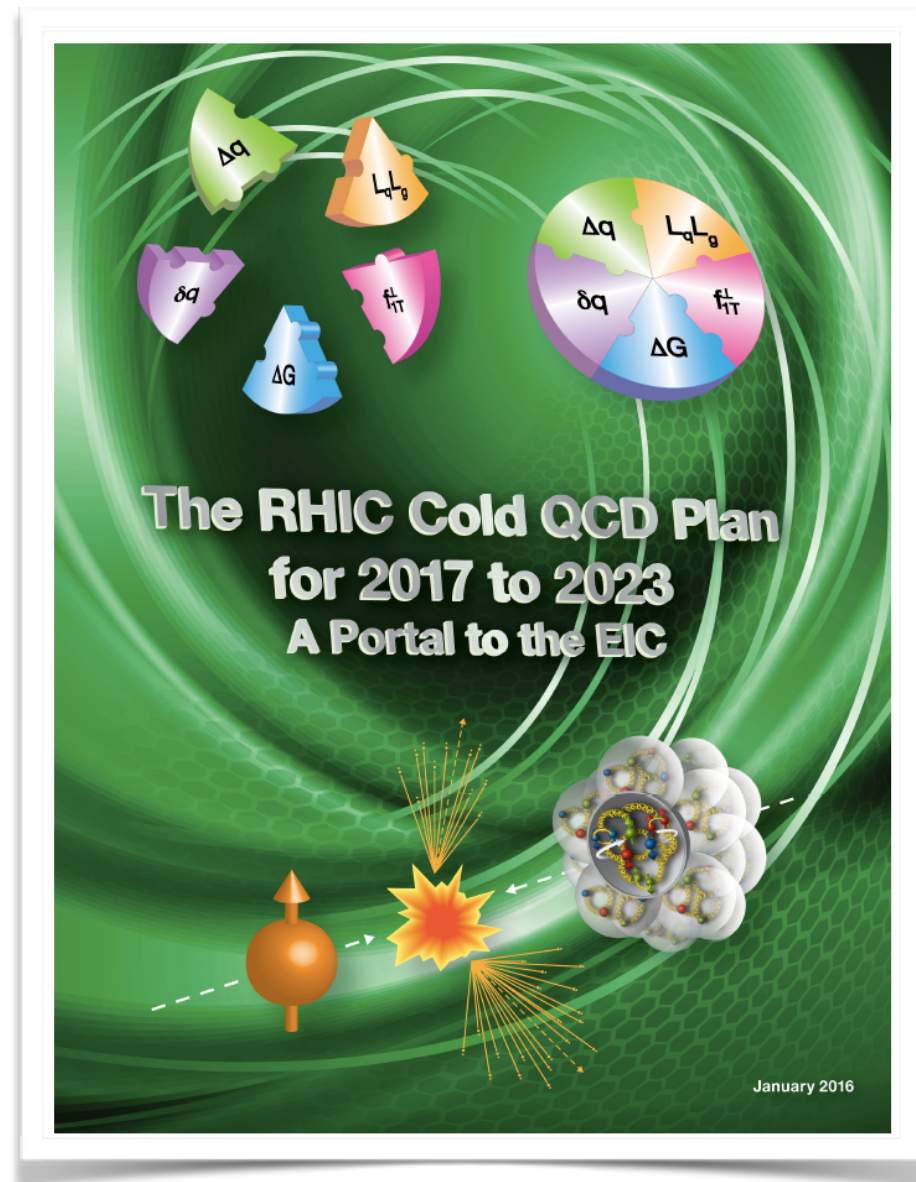
Welcome to the sPHENIX Cold QCD Topical Group. This group explores physics opportunities with the sPHENIX experiment and examine how such measurements can support and complement EIC measurements, and how sPHENIX can evolve into a Day

References

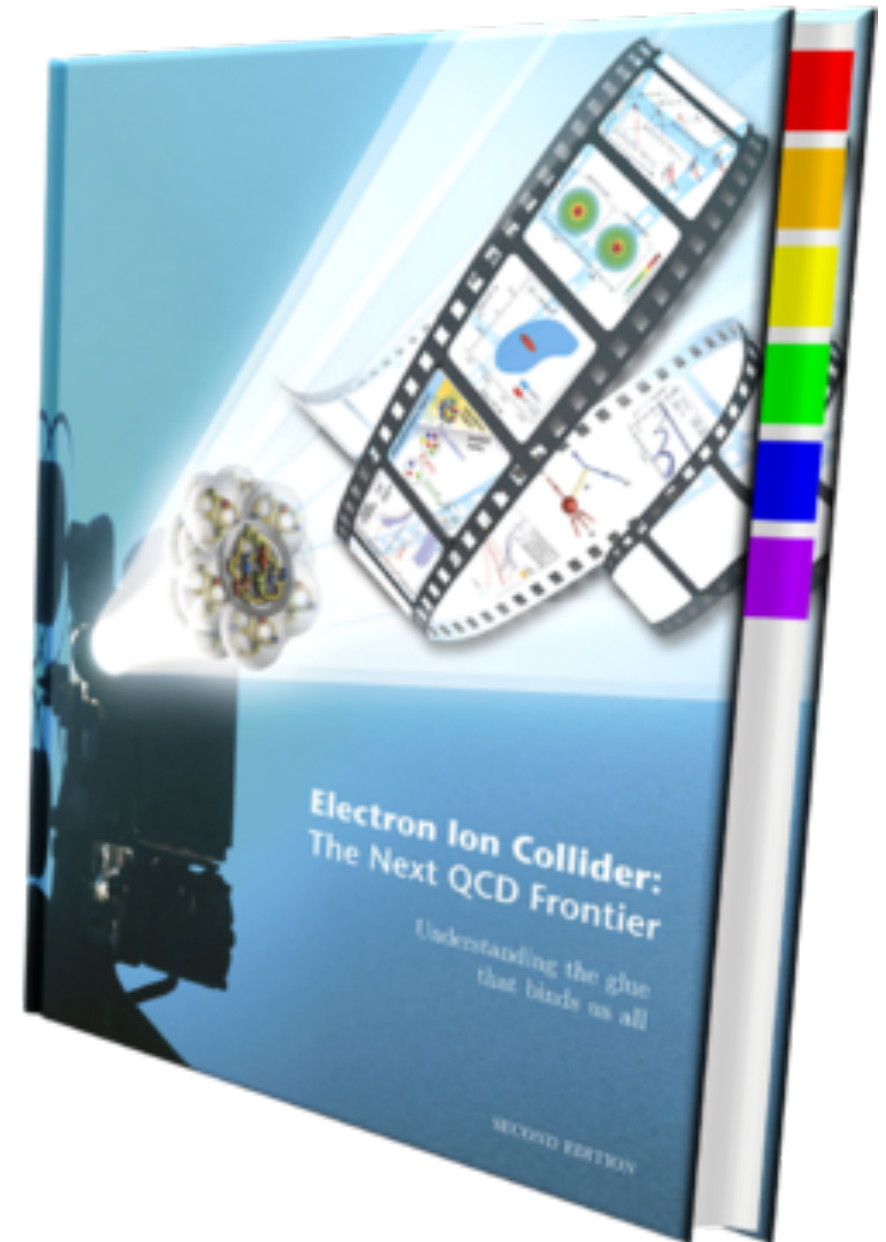
- Documents:
 - [The RHIC Cold QCD Plan for 2017 to 2023: A Portal to the EIC](#) 
 - [Future opportunities for p+p and p+A at RHIC](#) 

https://wiki.bnl.gov/sPHENIX/index.php/Cold_QCD_Topical_Group

Cold QCD at RHIC and EIC

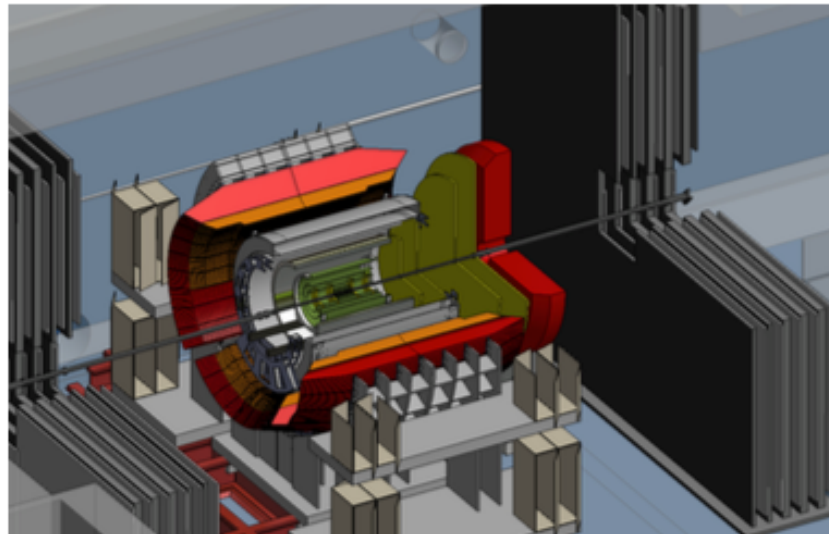


[arXiv:1602.03922]



[arXiv:1212.1701v3]

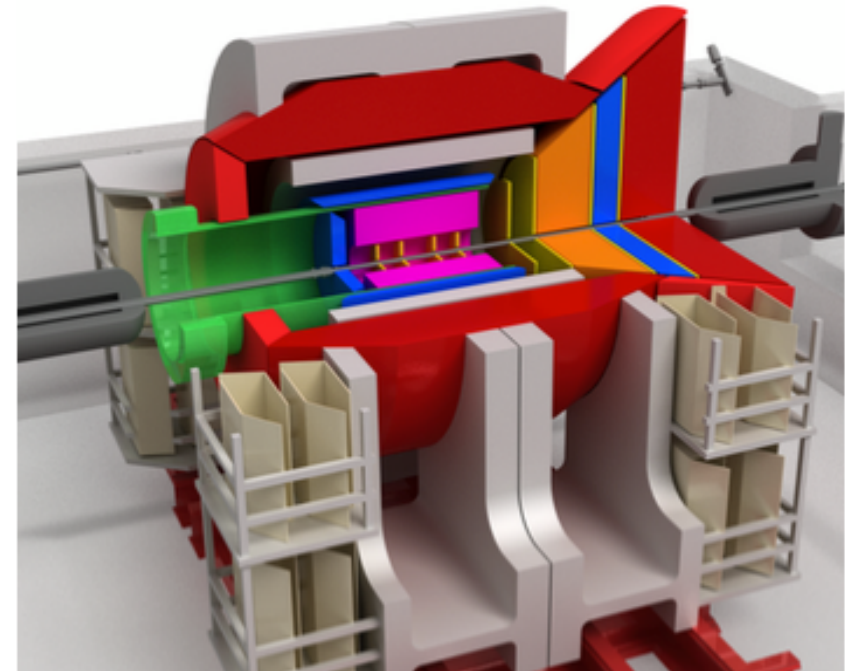
Future Opportunities in $p+p$ and $p+A$
Collisions at RHIC with the Forward
sPHENIX Detector



The PHENIX Collaboration
April 29, 2014

Concept for an Electron Ion Collider (EIC)
detector built around the BaBar solenoid

arXiv:1402.1209v1 [nucl-ex] 5 Feb 2014



The PHENIX Collaboration
February 3, 2014

<http://tinyurl.com/fsphenix2014>

[arXiv:1402.1209v1]

Previous documents for forward sPHENIX and EIC Detector